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PROGRAM INFORMATION BULLETIN NO. P06-14

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SUBJECT: Reissue of PIB No. P06-12: Use of Alternative Seal Methods and Materials Pursuant to 30 CFR 75.335(a)(2).

Who needs this information?
Underground bituminous coal mine operators, miners' representatives, independent contractors, Coal Mine Safety and Health (CMS&H) enforcement and Technical Support personnel, manufacturers of seal materials, and other interested parties need this information.

What is the purpose of this PIB?
This Program Information Bulletin (PIB) informs the mining industry about the implementation of 75.335(a)(2), Title 30 Code of Federal Regulations (30 CFR), and that ventilation plans need to be revised for mines where the operators will build alternative seals. This PIB supercedes PIB No.P06-12 issued June 12, 2006, "Reissued Moratorium on Future Use of Alternative Seal Methods and Materials Pursuant to 30 CFR 75.355 and Assessment of Existing Sealed Areas in Underground Bituminous Coal Mines."

Information
The Mine Safety and Health Administration (MSHA) has reviewed the information from the Darby No. 1 Mine and Sago Mine accidents as well as the use of alternative seals allowed in mine ventilation plans. The Agency also is conducting in-mine evaluations of alternative seals. MSHA is concerned that alternative seals be able to prevent the propagation of explosions into the active workings of the mine.

Section 75.335 "Construction of seals" provides in part:

> (a)(2) Alternative methods or materials may be used to create a seal if they can withstand a static horizontal pressure of 20 pounds per square inch provided the method of installation and the material used are approved in the ventilation plan.

The following implementation procedures are intended to ensure that alternative seals meet the legal standard.

Evaluation and Proper Construction Specifications
All alternative seals will be evaluated by MSHA to determine adequacy and structural integrity. The evaluation will assess whether the seal is effectively performing its intended purpose. If the evaluation identifies construction deficiencies, the operator will be required to perform the necessary remedial actions.

For all alternative seals to be built, the applicable mine ventilation plans will be revised to include the following features: (1) A list of the definitive methods of construction and materials used in the construction of the seals. This listing of methods and materials must be approved under the applicable National Institute of Occupational Safety and Health (NIOSH) protocols in effect at the time of revision. (2) A responsible person(s), who is part of mine management or is a specialized contractor, and who is knowledgeable in construction techniques, should be designated in the ventilation plan. Construction of these alternative seals should be supervised by this designated responsible person(s) to ensure that the construction of these alternative seals meets these protocols and provides a suitable level of assurance for seal construction integrity. (3) Training under Part 48, 30 CFR, to assure that all miners, including contractors, who construct or maintain the seals, are appropriately trained to perform such duties safely. (4) Mine operators should notify MSHA at least 24 hours in advance of all alternative seal construction so that inspection personnel can evaluate the construction process.

Mine Atmosphere Assessment and Remedial Actions
In addition, the applicable mine ventilation plan will be revised to address the periodic assessment of the mine atmosphere behind any alternative seal that is a type of seal that has an on-going history of poor performance or failure in accidents.

The assessment includes the mine methane liberation history, seam history (i.e., spontaneous combustion potential or seam liberation potential), mine ventilation experience, and a proposed sampling regime. The sampling regime should include a description of how sealed atmospheres will be sampled, i.e. in-mine sampling, through boreholes from either the mine surface or by other means. As with other ventilation plan provisions, the proposed sampling regime and frequency will be evaluated on a mine-by-mine basis. Based on the size and orientation of the sealed area (i.e. seal locations in relation to escapeways and areas where miners work or travel), seam and mine history, experience with the mine and similar mines, as well as quantitative in-mine sample results, further sampling, which may include surface boreholes, may be needed.

Where an assessment is to be conducted, the ventilation plan also will describe remedial actions to be taken if the atmosphere in a sealed area is found to be in the explosive range. Atmospheres found to be near the explosive range when considering barometric pressure changes and other factors, such as temperature and accumulations of water, could also require remedial action. Remedial actions could include inert gas injection or the use of water to inert the area if the mine dip and other conditions are conducive to this type of action. In some cases, resealing, grout injection or other remedial measures may be necessary to provide protective isolation of the sealed area. No remedial action, as described in this paragraph, will be necessary if the atmosphere in a sealed area is found at the time of sampling not to be in the explosive range.

However, continued seal maintenance will be necessary, including testing of the atmosphere outby the seals, as required by 30 CFR.

Due Date
By July 17, 2006, mine operators should submit the revised ventilation plans to the appropriate MSHA District Manager for approval. All new ventilation plans submitted for approval should contain the above features, as applicable.

What is the background for this PIB?
The two recent and deadly mine explosions at the Sago Mine in January, 2006 and the Darby No. 1 Mine in May, 2006 show that there are problems with the construction and use of alternative methods and materials to create seals. Properly constructed seals are crucial to containing explosions and preventing the migration of potentially explosive methane-air mixtures from worked out areas to the working areas of an underground coal mine.

What is MSHA's authority for this PIB?
The Federal Mine Safety and Health Act of 1977; 30 CFR Parts 75.335, 75.370, and 75.371.

Where is this PIB on the Internet?
This information may be viewed on the World Wide Web by accessing MSHA's home page (http://www.msha.gov), choosing "Compliance Info" and "Program Information Bulletins."

Who are the MSHA contact persons for this PIB?
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Who will receive this PIB?
MSHA PPM Holders
Underground Bituminous Coal Operators
Miners' Representatives
Independent Contractors
Special Interest Groups